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Cordochaete (Agaricomycetes), a new corticioid genus from India

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Abstract – A new monotypic corticioid genus, *Cordochaete*, is described with the new species *C. cystidiata*, from Haridwar in Uttarakhand, India.

Key words – hyphal cordons, Chandighat, angiospermous wood

While conducting a fungal foray in Chandighat area in district Haridwar of Uttarakhand, India, S.K. Sanyal collected a specimen on decaying angiospermous wood in a mixed forest. The specimen was compared macroscopically and microscopically with similar genera in *Corticiaceae* (Rattan 1977, Eriksson et al. 1981, Burdsall 1985, Dhingra 1987, Nakasone & Sytsma 1993, Greslebin et al. 2004, Martínez &Nakasone 2005, Zmitrovich & Ezhov 2011) but could not be assigned to any already known, and is described here as a new genus. Morphological traits show similarities with the genera *Phlebiopsis* and *Rhizochaete*.

Cordochaete Sanyal, Samita, Dhingra & Avneet P. Singh, **gen. nov.**

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Differs from *Phlebiopsis* in having hyphal cordons and is distinguished from *Rhizochaete* by the absence of a red or violet KOH reaction in both the hymenium and hyphal cordons.

Type species: *Cordochaete cystidiata* Sanyal et al.

Etymology: The generic name is based on the resemblance to *Rhizochaete* and the presence of hyphal cordons.

Basidiocarp resupinate, adnate, effused; hymenial surface corneous as dry; hyphal system monomitic; generative hyphae without clamps; basal zone very thin, context conspicuous, of loosely interwoven hyphae; subhymenium compact, hyphal cordons both in context and subhymenium; cystidia thick-walled, encrusted; basidia clavate, 4-sterigmate, without basal clamp; basidiospores ellipsoidal to subcylindrical, inamyloid, acyanophilous.

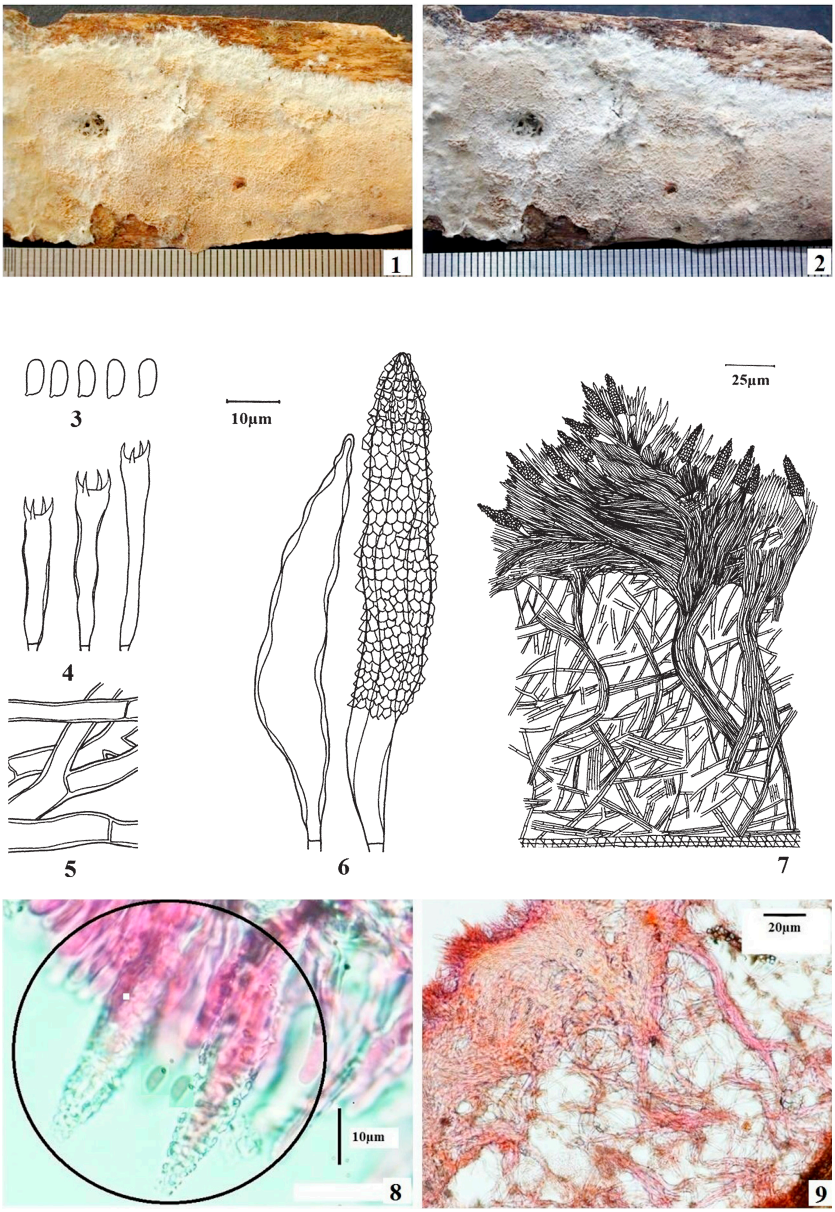

Plate 1. *Cordochaete cystidiata* (holotype). Figs 1–2: Basidiocarps. 1. Fresh. 2. Dried. Figs 3–7: Microscopic structures. 3. Basidiospores. 4. Basidia. 5. Generative hyphae. 6. Cystidia. 7. Section. Figs 8–9. Micrographs. 8. Encrusted cystidia and basidiospores. 9. Section.

Remarks— This genus can be differentiated from *Rhizochaete* in lacking a reddish or purplish change of the basidiome and hyphal cordons in KOH solution and from *Phlebiopsis* in lacking very compact context.

Cordochaete cystidiata Sanyal, Samita, Dhingra & Avneet P. Singh, **sp. nov.**

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Differs from *Phlebiopsis gigantea* by its loosely arranged context and presence of cystidia only in the hymenium and from *Rhizochaete radicata* by its compact hymenium and subhymenium.

Type: India, Uttarakhand: Haridwar, Chandighat, on decaying angiospermous wood, 20 August 2011, S.K. Sanyal 4745 (PUN, **holotype**).

Etymology: The epithet refers to the presence of encrusted cystidia.

Basidiocarp resupinate, adnate, effused, ≤ 850 µm thick in section; hymenial surface reticulate, corneous as dry, pale orange to grayish orange when fresh, orange gray to brownish gray on drying; margins thinning, fibrillose, paler concolorous to whitish, to indeterminate. Hyphal system monomitic; generative hyphae ≤ 6.5 µm wide; generative hyphae branched, septate, without clamps; basal zone of a very few horizontal hyphae, followed by conspicuous zone of loosely interwoven hyphae interspersed with hyphal cordons; subhymenial zone mainly of compact vertical hyphae and hyphal cordons; hyphae in the cordons thick-walled, without clamps. Cystidia 85–95 × 11–13.5 µm, subfusiform to fusiform, thick-walled, encrusted, projecting beyond the hymenial surface, negative to sulphovanillin. Basidia 28–39 × 5–6.5 µm, clavate, 4-sterigmate, thin- to somewhat thick-walled, without basal clamp; sterigmata ≤ 5 µm long. Basidiospores 6.5–8 × 3–3.5 µm, ellipsoidal to subcylindrical, thin- to somewhat thick-walled, inamyloid, acyanophilous.

Remarks— *Rhizochaete radicata* differs in having basidiome that turns reddish purple in KOH solution and subicular hyphae with brown granules that dissolve in KOH. *Phlebiopsis gigantea* differs in having cystidia distributed throughout the basidiome.

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